

WHAT IS CLAIMED IS:

1. A manufacturing method of a liquid jet head, comprising:

5 a step of disposing a liquid flow path pattern containing a soluble resin on a substrate and disposing a coating layer containing a resin forming a wall of the liquid flow path so as to coat the liquid flow path pattern;

10 a step of disposing a liquid discharge energy generation element for generating an energy for use in discharging a liquid in a place disposed opposite to the liquid flow path pattern;

a step of separating and removing the substrate; and

15 a step of removing the liquid flow path pattern to form the liquid flow path.

2. The manufacturing method of the liquid jet head according to claim 1, further comprising: a step  
20 of forming a liquid discharge port in the coating layer between the step of separating and removing the substrate and the step of forming the liquid flow path.

25 3. The manufacturing method of the liquid jet head according to claim 1, wherein the step of disposing the liquid flow path pattern and the

coating layer comprises: a step of forming a first coat resin layer on the substrate; a step of forming a liquid flow path pattern in a soluble resin on the first coat resin layer; a step of forming a second  
5 coat resin layer which constitutes a liquid flow path wall and vibration plate; and a step of forming a bond layer constituting a bond portion with respect to the liquid discharge energy generation element on the second coat resin layer.

10

4. The manufacturing method of the liquid jet head according to claim 3, further comprising: a step of forming a liquid discharge port in the first coat resin layer between the step of forming the first  
15 coat resin layer and the step of forming the liquid flow path pattern.

5. The manufacturing method of the liquid jet head according to claim 1, wherein the step of  
20 separating and removing the substrate comprises: eluting a separating layer of a soluble resin formed on the substrate.

6. The manufacturing method of the liquid jet  
25 head according to claim 1, wherein the coating layer contains a solid epoxy resin at room temperature.

7. The manufacturing method of the liquid jet head according to claim 6, further comprising the step of forming the coating layer on the substrate by spin coat or roll coat.

5

8. The manufacturing method of the liquid jet head according to claim 1, wherein the substrate and the layer of the resin formed on the substrate have optical transmission.

10

9. The manufacturing method of the liquid jet head according to claim 1, wherein the liquid discharge energy generation element is a piezoelectric element.

15